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CLAIMS

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10 1. A method of carrying an application level message
encapsulated inside a signaling message of an access
network, said method comprising the steps of:
        receiving (1) an application level message from a
sender application process to an access network signaling
15 process;
        adapting (3) said application level message and
encapsulating it in a signaling message of an access
network; and
        delivering (1, 3, 4) said encapsulated application
20 level message to a receiver application process by
transmitting said signaling message, wherein said
encapsulated application level message is transparent to
the means of said access network transmitting said
signaling message, and
25   wherein said application level message includes an
indication under which conditions the signaling message
should be delivered.

2. A method according to claim 1, wherein said sender
30 application process is performed in a mobile terminal being
attached to said access network.

3. A method according to claim 1, wherein said sender
application process is performed in a server providing a
35 corresponding application.

AMENDED SHEET

4. A method according to claim 1, wherein said indication comprises an address of the application receiver process being one of the group comprising a logical name, an IP address, and a port number.

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5. A method according to claim 1 or 4, wherein said indication comprises another indication whether said signaling message should be delivered even if the Quality-of-Service changes.

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6. A method according to claim 1, wherein said method is implemented in a call establishment procedure for Voice over the Internet Protocol (VoIP).

15   7. A method according to claim 1, wherein said encapsulated application level message is included in an activation request within a Packet Data Protocol (PDP) context signaling.

20   8. A method according to claim 3, wherein said application server is one of the group of proxy call state control function means (P-CSCF), push proxy server means, and instant message server means.

25   9. A method according to claim 7, wherein said packet data protocol (PDP) context signaling is embedded into one of the group of a Session Initiation Protocol (SIP) signaling, a Resource Reservation Protocol (RSVP) signaling, and a Point to Point Protocol (PPP) signaling.

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10. A method according to claim 7, wherein said encapsulated application level message includes a complete Session Initiation Protocol (SIP) message.

AMENDED SHEET

11. A method according to claim 10, wherein a Gateway GPRS Support Node (GGSN) creates a Internet Protocol/User Datagram Protocol header and forwards said complete Session Initiation Protocol (SIP) message to a Session Initiation

5 Protocol (SIP) proxy means.

12. A method according to claim 11, wherein said header is created by using information sent in an optional application level message information element.

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13. A method according to claim 11, wherein said header is created by using information coming from said Packet Data Protocol (PDP) context signaling.

15 14. A method according to claim 11, wherein said header is created by using information coming from a configuration process.

15. A method according to claim 7, wherein
20   said encapsulated application level message indicates that a Gateway GPRS Support Node (GGSN) shall send a context response message only when a response of said receiver application process is received, as a reaction to which said Gateway GPRS Support Node (GGSN) starts a timer
25 to wait for answer; and wherein
     a reply before the expiry of said timer is copied as a new encapsulated application level message in said context response message, and in case of no reply before the expiry of said timer an indication that said receiver application
30 process does not answer is copied as a new encapsulated application level message in said context response message.

16. A method according to claim 7, wherein
     said encapsulated application level message indicates
35 that a Gateway GPRS Support Node (GGSN) shall send a

AMENDED SHEET

context response message immediately, as a reaction to
which said Gateway GPRS Support Node (GGSN) sends a context
response message immediately, whereas a response of said
receiver application process is returned to said sender
5   application process in a non-encapsulated manner as normal
traffic.

17. A system adapted to perform a transmission of an
application level message encapsulated inside a signaling
10   message of an access network, comprising:
      receiving means adapted to receive an application
level message from a sender application process to an
access network signaling process;
      adapting means for encapsulating said application
15   level message in a signaling message of an access network;
and
      delivering means adapted to deliver said encapsulated
application level message to a receiver application
processing means, and
20   wherein said application level message includes an
indication under which conditions the signaling message
should be delivered.

18. A system according to claim 17, further comprising a
25   server adapted to perform said sender application process.

19. A system according to claim 18, wherein said server is
one of the group of proxy call state control function means
(P-CSCF), push proxy server means, and instant message
30   server means.

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